

Fast-acting 690 V wind CUBEFuse



Catalog symbol

- WCF_RN

Description

The Bussmann™ series wind CUBEFuse is a fast-acting, finger-safe, current-limiting fuse developed for wind power generation applications up to 690 Vac. It features a small installed footprint for application versatility. The wind CUBEFuse must be applied using the 690 V CUBEFuse holder.

Ratings

- Volts 690 Vac
- Amps 1-100 A
- Interrupting rating
 - 50 kA RMS Sym (up to 60 A)
 - 30 kA RMS Sym. (70-100 A)

Agency information

- UL Recognized: Guide JFHR, File E56412
- cURus Component Certified, C22.2
- RoHS compliant
- CE

Catalog Numbers (amp)

| | | | |
|---------|---------|---------|----------|
| WCF1RN | WCF20RN | WCF45RN | WCF90RN |
| WCF3RN | WCF25RN | WCF50RN | WCF100RN |
| WCF6RN | WCF30RN | WCF60RN | |
| WCF10RN | WCF35RN | WCF70RN | |
| WCF15RN | WCF40RN | WCF80RN | |

Electrical characteristics

- 4 minutes max clearing time at 200% rated current for up to 30 A fuses
- 6 minutes max clearing time at 200% rated current for 35 to 60 A fuses
- 8 minutes max clearing time at 200% rated current for 70 to 100 A fuses

Watts loss at rated current

| Fuse amps | Watts |
|-----------|-------|
| WCF15RN | 3.48 |
| WCF30RN | 5.45 |
| WCF60RN | 7.27 |
| WCF100RN | 11.50 |

Operating and storage temperature range

-40°C to 90°C

Materials

- Case: glass filled PES (Polyethersulfone)
- Terminals: electroless tin plated copper alloy

Features

- Maximize uptime and reliability using fuses designed and recognized to UL 248 for low voltage fuses
- Fast-acting protection specifically designed for low-fault current conditions that occur in wind power generation systems
- Minimize chances of equipment failure and personnel injury when using full range fuses having fast response time to low-magnitude faults
- Simplify compatibility with readily available industry standard Class CF holders while minimizing panel space by up to 80%
- Meets all UL specified overload opening requirements
- Current limitation minimizes incident energy and reduces arc flash hazards
- Finger-safe feature minimizes exposure to live parts, reducing hazard to personnel

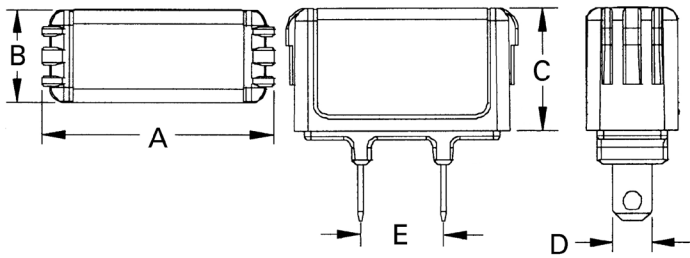
Carton quantity and weight

| Amps | Qty. | Weight lbs (kg) |
|----------|------|-----------------|
| up to 30 | 12 | 1.39 (0.63) |
| 35-60 | 12 | 1.42 (0.65) |
| 70-100 | 6 | 1.74 (0.79) |



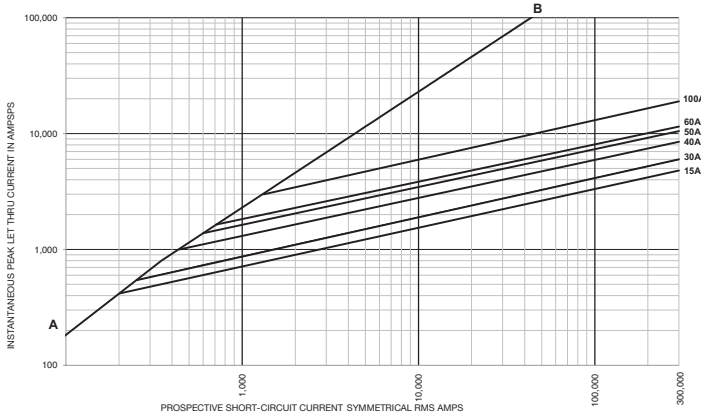
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Dimensions – in (mm)

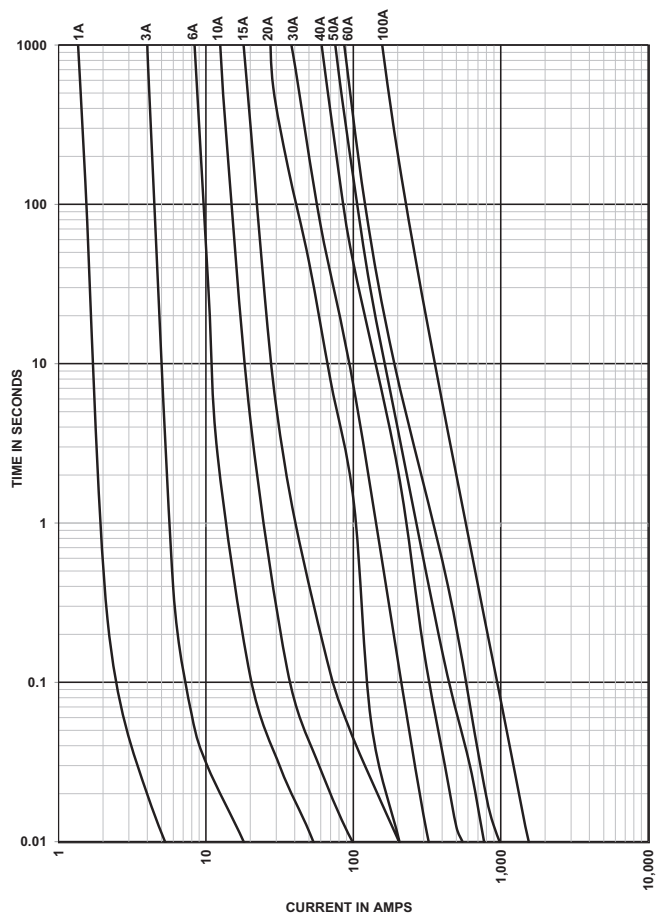


| Amp range | A | B | C | D | E |
|-----------|-----------|-----------|-----------|-----------|-----------|
| 1-15 | | | | 0.23 (6) | |
| 20 | 1.88 (48) | 0.75 (19) | 1.0 (25) | 0.27 (7) | |
| 25-30 | | | | 0.31 (8) | 0.67 (17) |
| 35-40 | | | | 0.36 (9) | |
| 45-50 | 2.13 (54) | | 1.13 (29) | 0.44 (11) | |
| 60 | | 1.0 (25) | | | |
| 70 | | | | 0.49 (12) | |
| 80-90 | 3.01 (76) | | 1.26 (32) | 0.49 (12) | 0.64 (16) |
| 100 | | | | 0.57 (14) | |

Current limitation curves



Time-current characteristic curves – average melt



Wind CUBEFuse holders

The 690 V wind CUBEfuse must be applied using the wind CUBEfuse holder that is rated for 690 V. See data sheet 9007 for details.

| Fuse amps | Catalog no. | Amp range |
|-----------|-------------|-----------|
| up to 30 | TCFH30NW | 1-30 |
| 35-60 | TCFH60NW | 1-60 |
| 70-100 | TCFH100NW | 1-100 |



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 Printed in USA
 Publication No. 9009 - BU-SB12615
 August 2018

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